25. The shape-memory alloy wire pumping system of claim 21, further comprising: a reservoir upstream from the valve member, wherein the valve member controls the flow of fluid from a reservoir to an exit.

26. The shape-memory alloy wire pumping system of claim 25, further comprising;

a volume measurement assembly downstream from the valve member, the volume measurement assembly comprising a volume sensor chamber wherein the fluid from the reservoir enters the volume sensor chamber and wherein the volume measurement assembly determines to volume of fluid in the volume sensor chamber.

27. A shape-memory alloy wire pumping system comprising:

at least one shape-memory alloy wire;

a pump plunger connected to the at least one shape-memory alloy wire wherein the shape-memory alloy wire, when actuated, actuates the pump plunger;

a valve member connected to the at least one shape-memory alloy wire wherein the shape-memory alloy wire, when actuated, actuates the valve member;

a reservoir upstream from the valve member, wherein the valve member controls the flow of fluid from a reservoir to an exit;

a controller for controlling an ontime of the at least one shape-memory alloy wire; and

a temperature sensor for determining the temperature of the shape-memory alloy wire, wherein the controller determines the ontime based on the temperature of the shape-memory alloy wire before actuation of one of the pump plunger and the valve member.

28. The shape-memory alloy wire pumping system of claim 27, further comprising a second valve member connected to a second shape-memory alloy wire wherein the second shape-memory alloy wire, when actuated, actuates the second valve member.

29. The shape-memory alloy wire pumping system of claim 28, further comprising wherein the controller determines the ontime based on the temperature of the second shape-memory alloy wire before actuation of the second valve member.

30. A shape-memory alloy wire pumping system comprising:

a plurality of shape-memory alloy wires;

a pump plunger connected to at least one of the shape-memory alloy wires wherein the shape-memory alloy wire, when actuated, actuates the pump plunger;

a first valve member connected to at least one of the shape-memory alloy wires wherein the shape-memory alloy wire, when actuated, actuates the first valve member;

a second valve member connected to at least one of the shape-memory alloy wires wherein the shape-memory alloy wire, when actuated, actuates the second valve member;

a reservoir upstream from the first valve member, wherein the first valve member controls the flow of fluid from a reservoir to an exit;

a controller for controlling an ontime of the shape-memory alloy wires; and

a temperature sensor for determining the temperature of at least one of the shape-memory alloy wires wherein the controller determines the ontime based on the temperature of the shape-memory alloy wire.

31. The shape-memory alloy wire pumping system of claim 30, further comprising wherein the controller determines the ontime based on the temperature of the shape-memory alloy wire connected to the first valve member before actuation of the second valve member.

32. The shape-memory alloy wire pumping system of claim 30, further comprising wherein the controller determines the ontime based on the temperature of the shape-memory alloy wire connected to the second valve member before actuation of the second valve member.

33. The shape-memory alloy wire pumping system of claim 30, further comprising wherein the controller determines the ontime based on the temperature of the shape-memory alloy wire connected to the pump plunger before actuation of the pump plunger.

34. The shape-memory alloy wire pumping system of claim 30, wherein the same shape memory alloy wire actuates the pump plunger and the first valve member.

35. The shape-memory alloy wire pumping system of claim 33, wherein the same shape memory alloy wire actuates the pump plunger and the first valve member.

36. The shape-memory alloy wire pumping system of claim 30, wherein the temperature sensor is the first temperature sensor, and further comprising:

a second temperature sensor for determining the temperature of at least one of the other shape-memory alloy wires.

37. The shape-memory alloy wire pumping system of claim 30, wherein the temperature sensor is a thermistor.

38. The shape-memory alloy wire pumping system of claim 30, wherein the temperature sensor is located adjacent to one of the shape-memory alloy wires.

39. The shape-memory alloy wire pumping system of claim 30, further comprising wherein the volume measurement assembly is upstream from the second valve member, wherein the second valve member controls the flow of fluid from volume measurement assembly to an exit.

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